

What is claimed is:

1 1. An image transfer sheet, comprising:
2 a support having a first and a second surface;
3 optionally at least one barrier layer on said first
4 surface of said support;
5 a melt transfer layer on said optional at least one
6 barrier layer; and
7 an image receiving layer on said melt transfer layer;
8 wherein
9 said image receiving layer is capable of heat sealing an
10 image upon the application of heat up to 220°C.

1 2. The image transfer sheet according to claim 1,
2 wherein said image receiving layer comprises a
3 self-crosslinking polymer.

1 3. The image transfer sheet according to claim 2,
2 wherein said self-crosslinking polymer is a self-crosslinking
3 ethylene vinyl acetate polymer.

1 4. The image transfer sheet according to claim 2,
2 wherein said image receiving layer further comprises at least
3 one dye retention aid.

1 5. The image transfer sheet according to claim 4,
2 wherein said dye retention aid is a cationic polymer.

1 6. The image transfer sheet according to claim 2,
2 wherein said image receiving layer further comprises a
3 cationic polymer, a nylon copolymer, silica and EVA.

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1 7. The image transfer sheet according to claim 2,
2 wherein said image receiving layer further comprises an
3 opacifying agent.

1 8. The image transfer sheet according to claim 1, which
2 further comprises an antistatic layer on the second surface of
3 said support sheet.

1 9. The image transfer sheet according to claim 1,
2 wherein said melt transfer layer is an extruded melt transfer
3 layer.

1 10. The image transfer sheet according to claim 1,
2 wherein said melt transfer layer is a laminated melt transfer
3 layer.

1 11. The image transfer sheet according to claim 1,
2 wherein said melt transfer layer comprises polyurethane.

1 12. A kit comprising:
2 an image transfer sheet according to claim 1; and
3 optionally at least one of instructions for using said
4 transfer sheet or a non-stick sheet.

1 13. A process for preparing an image transfer sheet,
2 comprising:
3 providing a support having a first and a second surface;
4 optionally applying at least one barrier layer to said
5 first surface of said support;
6 applying a melt transfer layer on top of said at least
7 one barrier layer; and
8 applying an image receiving layer on top of said melt
9 transfer layer.

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1 14. The process according to claim 13, wherein said melt
2 transfer layer is applied by extrusion coating.

1 15. The process according to claim 13, wherein said melt
2 transfer layer is applied by lamination.

1 16. A process for preparing an image transfer sheet,
2 comprising:

3 providing a support, which is optionally coated with a
4 barrier layer;
5 applying a melt transfer layer to one side of said
6 optionally barrier-coated support; and
7 applying an image receiving layer on top of said melt
8 transfer layer.

1 17. A process for heat transferring an imaged area from
2 a transfer sheet to a receptor element, comprising the steps:

3 (a) providing an image transfer sheet according to claim
4 1;
5 (b) imaging the surface of said image receiving layer
6 opposite said melt transfer layer;
7 (c) peeling said imaged image receiving layer and said
8 melt transfer layer away from said optionally
9 barrier-coated support;
10 (d) placing the imaged image receiving layer and melt
11 transfer layer on top of a receptor element, imaged
12 side facing away from the receptor element;
13 (e) optionally placing a non-stick sheet on top of said
14 imaged image receiving layer and melt transfer
15 layer;
16 (f) applying heat to the peeled image or to the top of
17 the non-stick sheet, if present.

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1 18. The process according to claim 17, wherein said heat
2 is applied at a temperature from about 110 to 220 °C.

1 19. The process according to claim 17, wherein said heat
2 is applied through said non-stick sheet to drive said imaged
3 image receiving layer and melt transfer layer into said
4 receptor element.

1 20. A composition comprising:
2 at least one self-crosslinking polymer; and
3 at least one dye retention aid.

1 21. The composition according to claim 20, wherein said
2 self-crosslinking polymer is a self-crosslinking ethylene
3 vinyl acetate polymer.

1 22. The composition according to claim 20, further
2 comprising at least one thermoplastic binder other than the
3 self-crosslinking polymer.

1 23. The composition according to claim 22, wherein said
2 at least one thermoplastic binder is an ethylene vinyl acetate
3 copolymer.

1 24. The composition according to claim 20, wherein said
2 dye retention aid is a cationic polymer.

1 25. The composition according to claim 20, wherein said
2 dye retention aid is at least one selected from the group
3 consisting of a cationic polymer, a polyamide copolymer,
4 silica and PVA.

1 26. The composition according to claim 20, wherein said
2 self-crosslinking polymer is present in an amount of 15-40% by
3 weight based upon the dry solids weight of the formulation.

1 27. The composition according to claim 24, wherein said
2 cationic polymer is present in an amount of 1-10% by weight
3 based upon the dry solids weight of the formulation.

1 28. The composition according to claim 20, wherein said
2 dye retention aid is a polyamide copolymer present in an
3 amount of 5-40% by weight based upon the dry solids weight of
4 the formulation.

1 29. The composition according to claim 22, wherein said
2 thermoplastic polymer other than the self-crosslinking polymer
3 is present in an amount of 5-40% by weight based upon the dry
4 solids weight of the formulation.

1 30. The composition according to claim 20, wherein said
2 dye retention aid is silica present in an amount of 5-60% by
3 weight based upon the dry solids weight of the formulation.

1 31. The composition according to claim 20, wherein said
2 at least one dye retention aid is at least one selected from
3 the group consisting of a cationic polymer, a polyamide
4 copolymer, silica or PVA.

1 32. The composition according to claim 20, further
2 comprising an opacifying agent.

1 33. The composition according to claim 20, comprising:
2 15-40% by weight of at least one self-crosslinking
3 polymer;

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4 5-40% by weight of at least one thermoplastic polymer
5 other than said self-crosslinking polymer;
6 5-40% by weight of at least one polyamide copolymer;
7 1-10% by weight of at least one cationic polymer; and
8 5-60% by weight of silica,
9 wherein said % by weight is based upon a 100% total dry weight
10 of the composition.

1 34. The composition according to claim 33, comprising:
2 25-35% by weight of at least one self-crosslinking
3 polymer;
4 10-30% by weight of at least one thermoplastic polymer
5 other than said self-crosslinking polymer;
6 10-30% by weight of at least one polyamide copolymer;
7 1-4% by weight of at least one cationic polymer; and
8 10-40% by weight of silica,
9 wherein said % by weight is based upon a 100% total dry weight
10 of the composition.

1 35. The image transfer sheet according to claim 1,
2 further comprising at least one opaque layer between said melt
3 transfer layer and said image receiving layer.

1 36. An image transfer sheet, comprising:
2 a melt transfer layer;
3 an image receiving layer; and
4 at least one opaque layer between said melt transfer
5 layer and said image receiving layer,
6 said image receiving layer is capable of heat sealing an
7 image upon the application of heat up to 220°C.

1 37. The image transfer sheet according to claim 36,
2 wherein said image receiving layer comprises a
3 self-crosslinking polymer.

1 38. The image transfer sheet according to claim 37,
2 wherein said self-crosslinking polymer is a self-crosslinking
3 ethylene vinyl acetate polymer.

1 39. The image transfer sheet according to claim 37,
2 wherein said image receiving layer further comprises at least
3 one dye retention aid.

1 40. The image transfer sheet according to claim 37,
2 wherein said dye retention aid is cationic polymer.

1 41. The image transfer sheet according to claim 37,
2 wherein said image receiving layer further comprises an
3 opacifying agent.

1 42. The image transfer sheet according to claim 1,
2 wherein said melt transfer layer comprises polyurethane.

1 43. A kit comprising:
2 an image transfer sheet according to claim 36; and
3 optionally at least one of instructions for using said
4 transfer sheet or a non-stick sheet.